REMARKS

Claims 1-99 are canceled. Claims 100-111 are pending in this application, although the examiner has withdrawn claims 102-104 and 108-110 from consideration.

The examiner has requested that the applicant provide (or check for accuracy) updated status information, and has indicated that "the effective filing date of this application is 4-10-2000." The examiner's attention is directed to the Official Filing Receipt dated 02/01/2002 (copy attached) in which the domestic priority data as claimed by the applicant is noted as:

THIS APPLICATION IS A DIV OF 09/546,078 04/10/2000

WHICH IS A CIP OF 09/138,774 08/24/1998 PAT 6,126,681

This acknowledgement of domestic priority conforms to the claim to and recitation of priority in the Preliminary Amendment filed with this application and in the substitute specification submitted with the Amendment dated August 27, 2003, which was required by examiner Ram in the Office Action dated May 8, 2003. The examiner is respectfully requested to acknowledge that the earliest filing date to which this application is entitled is 08/24/1998.

The drawings are objected to because figures 11-17 are hand drawn. Replacement sheets are attached.

Claims 100 and 106 are rejected for anticipation by US Patent 3565099 ("Huber"). The applicants respectfully traverse this rejection for the following reasons.

To anticipate a claim, a reference must show the identical invention in as complete detail as is contained in the claim. See MPEP 2131.

Claim 100 recites combination for controlling airflow between an air hose and an inflatable thermal device. The air hose includes an end having a diameter. According to claim 100, there is "at least one inlet port in the inflatable thermal device for being coupled with the end of the air hose."

Even though the air hose is recited in the preamble of claim 100, it is used to establish antecedent basis for the body of the claim. The "air hose" is therefore an element of claim 100 that must have an identical counterpart in Huber. Huber teaches a reversible check valve that is coupled between fluid conducting pipes B. However, the right-hand pipe B in FIG. 1 is not described or illustrated as an "air hose". As the specification of this application sets forth, an "air hose" has a construction that includes a flexible sidewall. See page 17, lines 10-11. Huber's right-hand pipe B is evidently a

rigid tube, not an air hose. Huber therefore omits "an air hose" and without an air hose, also omits "an end of the air hose having a diameter."

Even though the inflatable thermal device is recited in the preamble of claim 100, it is used to establish antecedent basis for the body of the claim. The "inflatable thermal device" is therefore an element of claim 100 that must have an identical counterpart in Huber. In Huber, the left hand pipe B in FIG. 1 is not described or illustrated as an "inlet port" in an "inflatable thermal device." It is simply a tube with no connection save to the valve body A. Huber does not discuss control of airflow to an inflatable thermal device or connection of a pipe, tube, or air hose to an inflatable thermal device of any kind. The examiner has not introduced any extrinsic evidence to establish that the pipe B is inherently "at least one inlet port in the inflatable thermal device for being coupled with the end of the air hose." Huber therefore omits "an inflatable thermal device" and "at least one inlet port in the inflatable thermal device for being coupled with the end of the air hose."

Claim 100 also recites a "valve" that is "disposed in the air hose near the end". In Huber, the valve A with flap 15 is disposed outside of the end of the right-hand pipe B, not "in" the pipe. Huber therefore omits "a valve with a flap having a diameter substantially the same as the end diameter and disposed in the air hose near the end for opening to enable airflow out of the end when the end is coupled with the inlet port."

Claim 100 also recites "means near the end for opening the flap in response to the inlet port coupling with the end." As claim 100 further recites, the "means" includes a "hinge lever." The examiner has identified the left-hand pipe B as the inlet port and the right-hand pipe B as the end of the air hose, but no "means" in Huber for opening the flap has been identified, and so the anticipation analysis is incomplete. Nevertheless, if the valve flap 15 is part of such a means, Huber discloses that the valve flap "coacts with the seat" of a plug that contains the flap, not with either pipe B. See Huber's Abstract. Hubert therefore omits "means near the end for opening the flap in response to the inlet port coupling with the end."

Finally, claim 100 recites "the means including a hinge lever to cooperate with the inlet port to prevent the flap from blocking the flow of air when the end is coupled with the inlet port." Huber's flap 15 is not described or illustrated as a "hinge lever." The flap includes a journal pin 23 that acts like a hinge, but there is no piece on the flap that acts as a lever to move the flap. The flap 15 moves in response to fluid pressure against its faces 24 and 25, but no part of the flap, or any other part of the check valve, acts as a

lever. Further, the flap 15 freely swings to open and permit fluid to flow or to close and to prevent fluid from flowing. No part of the flap, or any other part of the check valve, cooperates with the left-hand pipe B to prevent the flap 15 from blocking fluid flow; it will always rotate to block fluid flow in response to fluid pressure against the face 25. Huber therefore omits "a hinge lever to cooperate with the inlet port to prevent the flap from blocking the flow of air when the end is coupled with the inlet port."

The rejection of the method set forth in claim 106 for anticipation by Huber is traversed for the reasons given above with respect to the rejection of claim 100. Further, since there is nothing in Huber's check valve to prevent the flap 15 from blocking fluid flow, Huber omits "the hinge lever cooperating with the inlet port to prevent the flap from blocking airflow." In Huber, if the right-hand pipe B is decoupled from the check valve, nothing blocks the flow of fluid through it. Therefore, Huber also omits "in response to decoupling, moving the flap to block airflow through the one end."

Accordingly, Huber does not anticipate claims 100 and 106.

Claims 101, 105, 107, and 111 are rejected for obviousness over Huber in view of US Patent 5716271 ("Paidosh"). The applicants respectfully traverse this rejection for the following reasons.

Rejection of a claim for obviousness over a combination of references requires, *prima facie*, a suggestion to combine the references, a reasonable expectation of success, and the inclusion of all elements of the rejected claim in the combination. See MPEP 2143, et seq.

Huber teaches a reversible check valve disposed between two fluid conductors in order to control the direction of fluid flow. Paidosh teaches the provision of magnetic means to retain the flap valve on an air vent outside of an exhaust blower in a closed position, which is a technical problem unrelated to the construction of a reversible check valve. Huber teaches a complete invention that makes provision for holding a flap closed by a combination of fluid pressure against one face of the flap and the mass of the counterweight 21, and therefore raises no suggestion for additional means to hold the flap closed. Also, Huber's counterweight 21 operates in response to the pull of gravity on its mass, and is therefore one of the "gravity-based flap valves" that Paidosh explicitly teaches away from. See Paidosh in this regard at column 4, lines 30-40. Addition of a magnet as taught by Paidosh would impede the ability of Huber's flap to open in response to pressure against the opposite face, thereby reducing the expectation of success. Finally, Huber omits the elements discussed above, and the

omission is not rectified by Paidosh. Furthermore, claims 101, 105, 107, and 111 require two magnets, a "first magnet in the air hose, and a second magnet on the flap." Each embodiment of Paidosh's magnetic latch has only one magnet 24 or 44. The elements 18, 28, and 36 are striker plates, not magnets.

Accordingly, claims 101, 105, 107, and 111 are not obvious over Huber in view of Paidosh.

For the reasons given in this paper, 100, 101, 105-107, and 111 are patentably distinguishable from the references of record, early notice of which is earnestly solicited.

Respectfully submitted,

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~~CONTROL AND DETECTION OF A CONDITION BETWEEN AN INFLATABLE THERMAL DEVICE AND AN AIR HOSE IN A CONVECTIVE WARMING SYSTEM~~ CONTROL OF AIRFLOW TO AN INFLATABLE THERMAL DEVICE

This is a divisional of application Serial No. 09/546,078, entitled CONTROL AND DETECTION OF A CONDITION BETWEEN AN INFLATABLE THERMAL DEVICE AND AN AIR HOSE IN A CONVECTIVE WARMING SYSTEM, invented by Van Duren et al, and filed on April 10, 2000, which is a continuation in part of prior application Serial No. 09/138,774, entitled DETECTION OF A CONDITION BETWEEN AN INFLATABLE THERMAL DEVICE AND AN AIR HOSE IN A CONVECTIVE WARMING SYSTEM, invented by Van Duren et al., and filed on August 24, 1998.

BACKGROUND OF THE INVENTION

This invention relates to pressurized thermal systems that regulate human core temperature by convecting pressurized, thermally regulated air. More particularly, the invention relates to inflatable thermal blankets and the like that are used, for example, in a medical setting to deliver a bath of pressurized air which is heated, cooled, or ambient temperature, for the treatment of hypothermia or hyperthermia. In particular, pressurized, thermally regulated air is used to inflate such a device and is expelled therefrom onto a person or animal. Still more particularly, the invention relates to controlling the flow of pressurized air through the end of an air hose in response to coupling and decoupling the end to the inlet port of an inflatable thermal device ~~monitoring the operation of a pressurized thermal device in order to detect and respond to a potentially hazardous condition of its operation. Further, the invention relates to the identification of an inflatable thermal device and controlling the delivery air in response to the identification so that special services can be provided based on patient identity or inflatable device model number~~.